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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,879	08/31/2001	Takahiro Nishiyama	P67087US0	9482

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EXAMINER	
RHEE, JANE J	
ART UNIT	**PAPER NUMBER**
1772	

DATE MAILED: 09/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-9

Advisory Action	Application N .	Applicant(s)	
	09/942,879	NISHIYAMA, TAKAHIRO	
	Examiner	Art Unit	
	Jane J Rhee	1772	

--The MAILING DATE of this communication app ars on the cover she t with the correspondence address --

THE REPLY FILED 25 August 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
   (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ they raise the issue of new matter (see Note below);
   (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.
   NOTE: _____.
3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☐ The a)☐ affidavit, b)☐ exhibit, or c)☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a)☐ will not be entered or b)☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: *none*.

   Claim(s) objected to: *none*.

   Claim(s) rejected: *1-16 and 18-20*.

   Claim(s) withdrawn from consideration: *21*.
8. ☐ The proposed drawing correction filed on _____ is a)☐ approved or b)☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.
10. ☒ Other: see attachment

ADVISORY ACTION

1. Newly submitted claim 21 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 21 is a method of manufacturing a hose.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 21 withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Applicant's election with traverse of 21 in Paper No. 8 is acknowledged. The traversal is on the ground(s) that any patentable invention must include both a method of making and a method of using any claimed product. This is not found persuasive because the originally presented claim is directed towards an article while the newly submitted claim is directed towards a method. Applicant can only add new claims directed towards an article and not towards a method.

The requirement is still deemed proper and is therefore made FINAL.

REPEATED REJECTIONS

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-11,13-16,18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spurgat in view of Chodha et al. (5985970).

Spurgat discloses a hose of multilayer wall comprising an innermost layer of rubber (col. 3 lines 64-65) and a gas impermeable metallic barrier layer formed in the wall surrounding the innermost layer (col. 3 lines 67-68, col. 4 lines1-2). Spurgat discloses that the barrier layer is a metal laminated layer formed by having a metal foil held between two resins films (col. 4 lines 11-18). Spurgat discloses that the laminated layer is formed by at least a single fold of spiral winding or longitudinal lapping of a tape of a laminated sheet formed by having the foil held between the resin films (col. 4 lines 11-18 and figure 2 number 16a, and col. 4 lines 3-4). Spurgat discloses that the barrier layer is in contact with the innermost layer (col. 3 lines 64-68, col. 4 lines 1-2). Spurgat discloses that the barrier layer forms a part of the wall surrounding the innermost layer and is surrounded by a fiber-reinforced layer (col. 4 lines 35-37). Spurgat discloses that the multilayer wall sequentially comprises the innermost layer, the barrier layer, a fiber reinforced layer and an outer rubber layer (col. 4 lines 35-37).

Spurgat fail to disclose that the rubber material is cured by an agent not containing any metal oxide or sulfur. Spurgat fail to disclose that the rubber material is resistant to hot water and to acid and/or alkali. Spurgat fail to disclose that the rubber material or the hose as a hole has an electrical resistance of at least $10^6\Omega$ cm. Spurgat fail to disclose that the material is selected from among ethylene-propylene-diene terpolymer rubber (EPDM), ethylene-propylene copolymer rubber (EPM), silicone-modified EPDM, silicone-modified EPM, fluororubber (FKM) and butyl rubber. Spurgat

fail to disclose that the rubber material is peroxide-cured EPDM or EPM free of zinc oxide. Spurgat fail to disclose that the multilayer wall comprises an intermediate butyl rubber layer. Spurgat fail to disclose that the foil has a thickness of 7 to 50um while the resin film has a thickness of 5 to 200um. Spurgat fail to disclose that the innermost layer and the barrier layer or every two adjoining layers are bonded to each other with an adhesive strength of at least 5kgf/inch. Spurgat fail to disclose that the wall has an inside diameter of 5 to 50 mm. Spurgat fail to disclose that the wall has a pair of ends each connected with a stainless steel pipe. Spurgat fail to disclose that wherein toward each end thereof, the wall has an inner surface treated for adhesion to the outer surface of the stainless steel pipe and the inner and outer surfaces are fasten by a sleeve.

Chodha et al. teaches peroxide cured EPDM (col. 1 lines 48-49) which is a rubber material that is by an agent not containing any metal oxide or sulfur for fabricating hoses (col. 1 line 30) for the purpose of yielding improved mechanical properties (col. 2 lines 61-63).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Spurgat with peroxide cured EPDM which is a rubber material that is by an agent not containing any metal oxide or sulfur for fabricating hoses in order to yield improved mechanical properties (col. 2 lines 61-63).

Since Chodha et al. discloses the same rubber material desired by the applicant it is inherent that the rubber material is resistant to hot water and to acid and/or alkali and that the rubber material or the hose as a hole has an electrical resistance of at least $10^6\Omega$ cm.

Spurgat discloses that the barrier layer is 0.001 to 0.003 inches thick (col. 4 line 15), it would have been obvious to one having ordinary skill in the art at the time the invention was made to obtain a foil with a thickness of 7 to 50um while the resin film has a thickness of 5 to 200um since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

Spurgat discloses that the heat activated adhesive bonds the barrier material together as a continuous high permeability layer within the resultant cured and formed hose (col. 4 lines 66-68, col. 5 line 1), it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to obtain an adhesive strength of at least 5kgf/inch, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

As to the wall with an inside diameter of 5 to 50 mm, it would have been an obvious matter of design choice to have a hose with an inside diameter of 5-50mm, since such a modification would have involved a mere change in size of a component. A change of size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955).

As to the wall having a pair of ends connected with a stainless steel pipe and wherein toward each end thereof, the wall has an inner surface treated for adhesion to the outer surface of the stainless steel pipe and the inner and outer surface are fastened by a sleeve, it has been held that a recitation with respect to the manner in

which the claimed article is intended to be employed does not differentiate the claimed article from the prior art article satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987).

3. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Spurgat and Chodha et al. in view of Kitami et al. (4881576).

Spurgat and Chodha et al. teaches the hose described above. Spurgat and Chodha et al. fail to disclose that the multilayer wall comprises an intermediate butyl rubber layer. Kitami et al. teaches that the multilayer wall comprises an intermediate butyl rubber layer (figure 1 number 22 and col. 2 line 60) for the purpose of providing a hose, which excels in impermeability to gas and to moisture, flexibility and mechanical strength (col. 1 lines 40-41).

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided Spurgat with an intermediate butyl rubber layer in order to provided a hose which excels in impermeability to gas and to moisture, flexibility and mechanical strength (col. 1 lines 40-41) as taught by Kitami et al.

Response to Arguments

4. Applicant's arguments filed 8/25/03 have been fully considered but they are not persuasive.

In response to applicant's argument that Chodha cannot suggest the exclusion of metal oxide, Chodha et al. teaches in col. 3 lines 7-16, a tack neutral additive which means an additive that has no inhibiting effect upon the surface tack of crosslinked

EPDM rubber products produced by vulcanizing the composition of this invention in the presence of oxygen, such additives include reinforcing fillers such as carbon black, talc, clay calcium carbonate and silica, process oils, processing aids useful in improving the dispersibility of the fillers during mastication, activators such as metal oxides, accelerators, pigments, foaming agents, forming aids, dessicants, and the like, the types and amounts of these tack neutral additives and the peroxide used as crosslinking agent can be selected and determined in accordance with the specific properties desired in the final EPDM rubber product. Chodha et al. teaches activators such as metal oxides, accelerators, pigments, foaming agents, forming aids, dessicants and the like therefore since Chodha et al. lists a variety of activators, metal oxides is only one of many to choose from, hence even though Chodha et al. does not specifically state that there is an exclusion of metal oxide, Chodha et al. does not specifically state an inclusion of metal oxide. Also, Chodha et al. teaches that the types and amounts of these tack neutral additives and the peroxide used as crosslinking agent can be selected and determined in accordance with the specific properties desired in the final EPDM rubber product.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jane J Rhee whose telephone number is 703-605-4959. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 703-308-4251. The fax phone numbers for

the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Jane Rhee
September 2, 2003

HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

9/2/03